

PROCESS AND APPARATUS FOR REDUCING THE CONTENT OF NO_x AND N₂O IN GASES

ABSTRACT

The method comprises the following steps: conduction of the gas containing N₂O and NO_x over a series of two catalyst beds consisting of one or more zeolites^o charged with iron; addition of a reduction agent for NO_x between the catalyst beds; setting of a temperature of less than 500°C in the first and second catalyst bed; setting of a gas pressure of at least 2 bar in the two catalyst beds; and the selection of a space velocity in the first and second catalyst bed that achieves a degradation of the N₂O content of the gas in the first catalyst bed by a maximum of up to 90%, in relation to the N₂O content at the entrance to the catalyst bed and an additional degradation of the N₂O content of the gas in the second catalyst bed by at least 30% in relation to the N₂O content at the entrance to the second catalyst bed. The first reaction zone is used to degrade the N₂O and the second reaction zone reduces the NO_x and breaks down at least part of the remaining N₂O. The inventive device comprises at least one radially traversed catalyst bed.